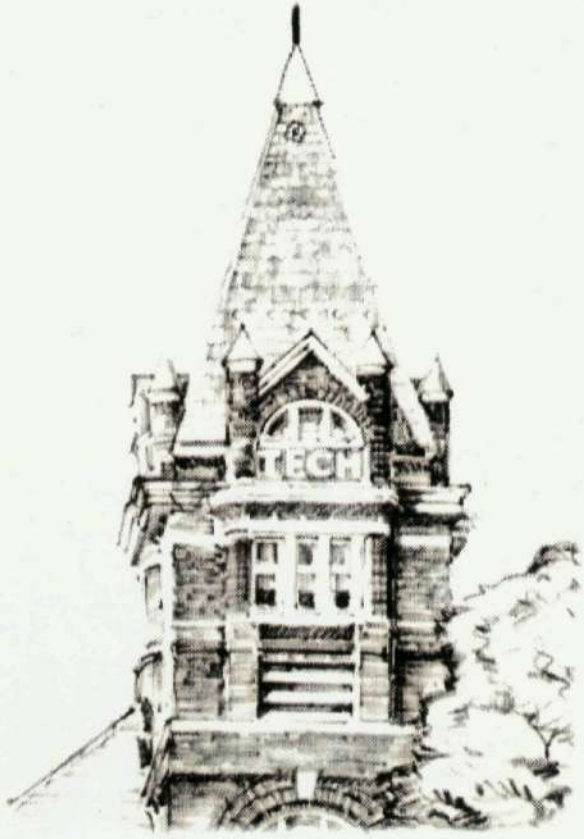
Georgia Institute of Technology

Institute Update

June 5, 1998



- 1998 GT Budget & Capital Outcomes-

- Six Percent Salary Increase (effective 9/1/98)
- Operating Budget Absorbs $4.7 M Decrease
- $10 M for Parking Deck (Payback)
- $1.3 M for Design of ES&T Building
- $ 10.2 M from the Georgia Research Alliance
- Invited to Present Proposal to Regents for Advanced Computing Technology Building For FY 2000-2004 Capital Plan

Georgia Tech
Undergraduate Admissions Highlights

For Fall Quarter 1998:

- 2,271 Deposits
- 1,299 Average SAT
- Female and Minority Deposits Up
- 1,393 Georgia Resident Deposits (up 14%)
- 878 Non-Resident Deposits (up 29%)
- Record Number of President's Scholars

Capital Program Highlights

Construction:

- Bioengineering & Biosciences
- MRDC II
- Sustainable Education Building
- Structures Lab

Planning:

- Environmental Science & Technology Building
- Combustion Lab

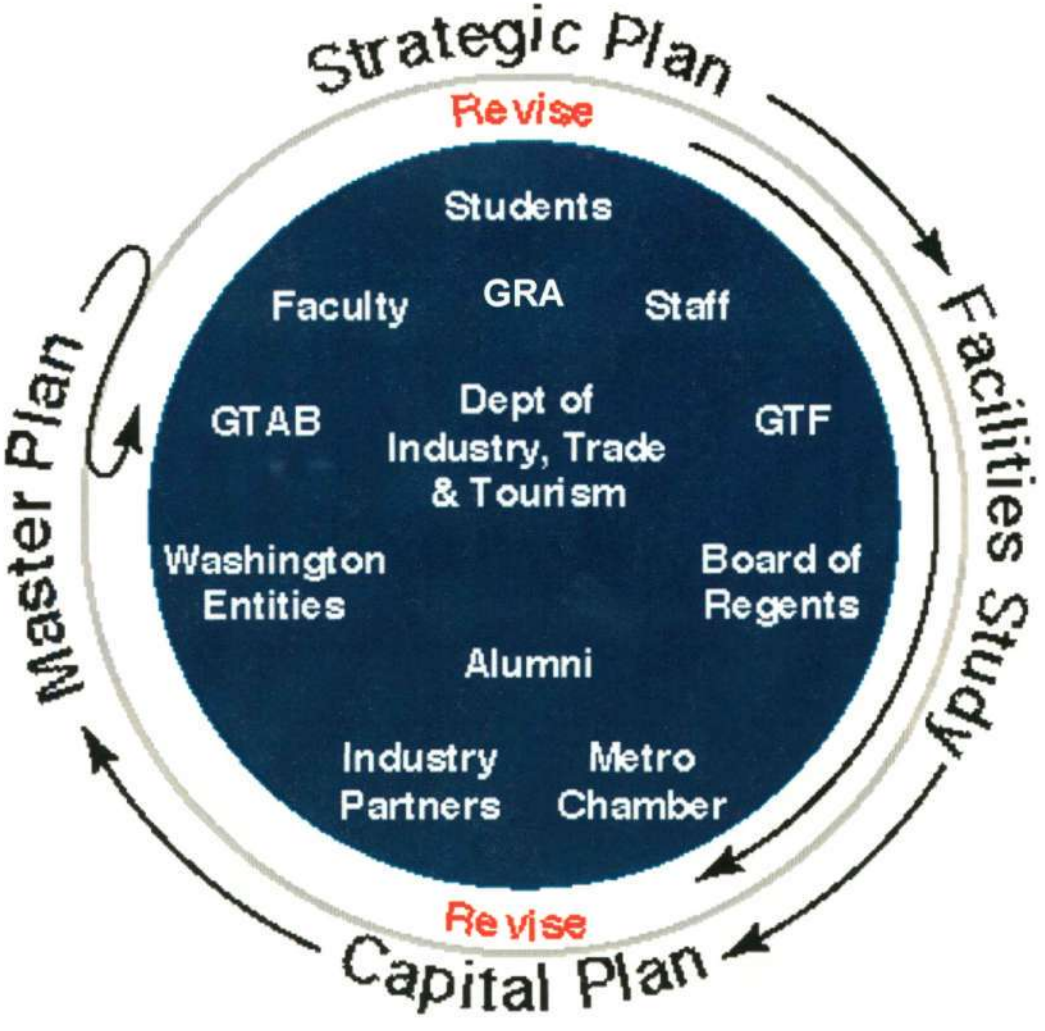
Milestones

- Capital Campaign Reaches $290 M
- Reorganized External Affairs
  - Office of Communications & Public Affairs
  - Office of Development
- Board of Regents Approve DuPree College of Management
- Received Clean Audit for Second Consecutive Year
- Awarded 2nd NSF Center of Excellence

Integrated Planning

- Where We Are...
- Where We Are Going...
- Using Integrated Planning To Get There...

Integrated Planning



Integrated Planning

Where We Are...

Perception Study Themes

- Tech is exceptional in engineering
- Tech needs to strengthen other programs (sciences, business)
- Tech should do more to take advantage of Atlanta location
- Entrepreneurial culture is a strength

U.S. News & World Report (USN&WR) Graduate Programs - Top 10 Rankings

- College of Engineering 4th (up from 5th)
- Schools / Specialty Programs
  - Industrial Eng. 1st
  - Graphics & User Interaction 1st
  - Public Policy / Info & Technology 3rd
  - Aerospace Eng. 5th
  - Non-Linear Dynamics & Chaos 5th
  - Databases 7th
  - Civil Eng. 7th
  - Mechanical Eng. 7th
  - Biomedical Eng. 9th
  - Electrical Eng. 10th
  - Environmental Eng. 10th

U.S. News & World Report (USN&WR) Graduate Programs - Top 20 Rankings

- Computer Engineering 12th
- Nuclear Engineering 12th
- Chemical Engineering 15th
- Materials Engineering 15th
- Architecture 15th
- Computer Science/Software 15th
- Applied Mathematics 17th
- Computer Science/PhD 18th
- Computer Science/Artificial Intelligence 19th

U.S. News & World Report (USN&WR) Graduate Programs - Other Rankings

- College of Management 31st
- Chemistry 40th
- Mathematics 41st
- Physics 50th
- Psychology 58th
- Biological Science 86th

Integrated Planning

Where We Are Going:
Benchmarking the Competition...

USN & WR Graduate Rankings for MIT

- School of Engineering 1st
- Engineering Specialty Programs
  - Aerospace 1st
  - Chemical 1st
  - Computer 1st
  - Electrical 1st
  - Materials 1st
  - Mechanical 1st
  - Nuclear 1st
  - Biomedical 4th
  - Civil 3rd
  - Environmental 6th
  - Industrial 10th

USN & WR
Graduate Rankings for MIT

- Biological Sciences 1st
- Computer Science 1st
- Economics 1st
- Mathematics 1st
- Physics 1st
- Architecture 2nd
- Chemistry 2nd
- Geology 2nd
- Management 3rd
- Psychology 12th

Comparison of Honors

- **National Academy of Sciences**

MIT	Stanford	Berkeley	GT	UGA
98	86	105	2	7

- **National Academy of Engineering**

MIT	Stanford	Berkeley	GT	UGA
99	73	61	14	1

- **Institute of Medicine**

MIT	Stanford	Berkeley	GT	UGA
23	44	5	1	0

Comparison of Honors

- **Nobel Laureates**

MIT	Stanford	Berkeley	GT	UGA
12	14	10	0	0

- **Rhodes Scholars**

MIT	Stanford	Berkeley	GT	UGA
27	67	20	1	17

- **Truman Scholars**

MIT	Stanford	Berkeley	GT	UGA
12	41	11	3	9

Comparison of Honors
The Encouraging News...

- **NSF Career Awards**

MIT	Stanford	Berkeley	GT	UGA
23	9	13	25	2

Integrated Planning

How We're Going To Get There...

Integrated Planning

Basic Understandings

- Improve Reputation of Programs
- Build on Success of Engineering
- Quality is Key and Takes Time
- Funding is an Issue
- Maintain GT's Unique Perspective and Strengths

Tactics

- **Link GT Strategy to Regional Economic Development Efforts**
  - Metro Chamber of Commerce
  - Georgia Chamber of Commerce
  - Industry (for example, Georgia Power)
  - Georgia Department of Industry, Trade & Tourism
  - Board of Regents
- **Build Alliances**
- **Use Targeted Investments**
- **Take Calculated Risks**

Tactics

- Build Flexibility, Efficiency in Management Structures
- Seize Leadership Role in Key Interdisciplinary Areas
- Establish Washington and International Presence
- Use Capital Plans to Drive Strategy

Construction 1994 - Olympics

- MRDC I
- GCATT
- Seven New Residence Halls
- Aquatic Center
- Homer Rice Center for Sports Performance
- Skiles Renovation
- Guggenheim Renovation

Georgia Tech Space Needs

Based on Facilities Study

- **GT's Average Square Footage / Faculty is 15% Below that of our Peers (50% Below in Computing)**
- **To Correct Existing Deficiencies:**
  - **1 Million Gross Square Feet**
  - **Estimated Cost $207 Million**
- **To Meet Projected Requirements Regarding Enrollment Growth and Program Initiatives:**
  - **714,000 Gross Square Feet**
  - **Estimated Cost $142 Million**

Current
Construction & Planning Highlights

Construction:

- Bioengineering & Biosciences
- MRDC II
- Sustainable Education Building
- Structures Lab

Planning:

- Environmental Science & Technology Building
- Combustion Lab

Major Capital Plans

- Environmental Science & Technology Building
- Advanced Computing Technology Building
- Undergraduate Learning Center
- Student Recreation Center II
- Molecular/Materials Science & Engineering Building
- Executive / Continuing Education Conference Center
- Boggs Undergraduate Lab Renovation
- Bunger-Henry Building Renovation

Realizing the Capital Plan... A Historical Perspective

2001

ES&T Building

2002

2003

Advanced Computing Technology Building

2004

2005

Executive / Continuing Education Conference Center

2006

2007

Student Recreation Complex II

2008

2009

Undergraduate Learning Center

2010

2011

Molecular / Material Science & Engineering Building

2012

2013

Boggs Undergrad Lab Renovation

2014

2015

Bunger Henry Building Renovation

Realizing the Capital Plan…
An Aggressive Perspective

2001	2002	2003	2004	2005
ES&T Building	Advanced Computing Technology Building Student Recreation Complex II	Undergrad Learning Center Executive / Continuing Education Conference Center	Molecular / Material Science & Engineering Building	Boggs Undergrad Lab Renovation Bunger Henry Building Renovation

Realizing the Capital Plan...

- **Aggressive Funding is not new to GT….Only Four of the First 14 Buildings were Funded by the State**

Integrated Planning Example I
The BEM Complex

- Bioengineering and Biosciences
- Environmental Science & Technology
- Molecular and Materials Sciences and Engineering

The BEM Vision...

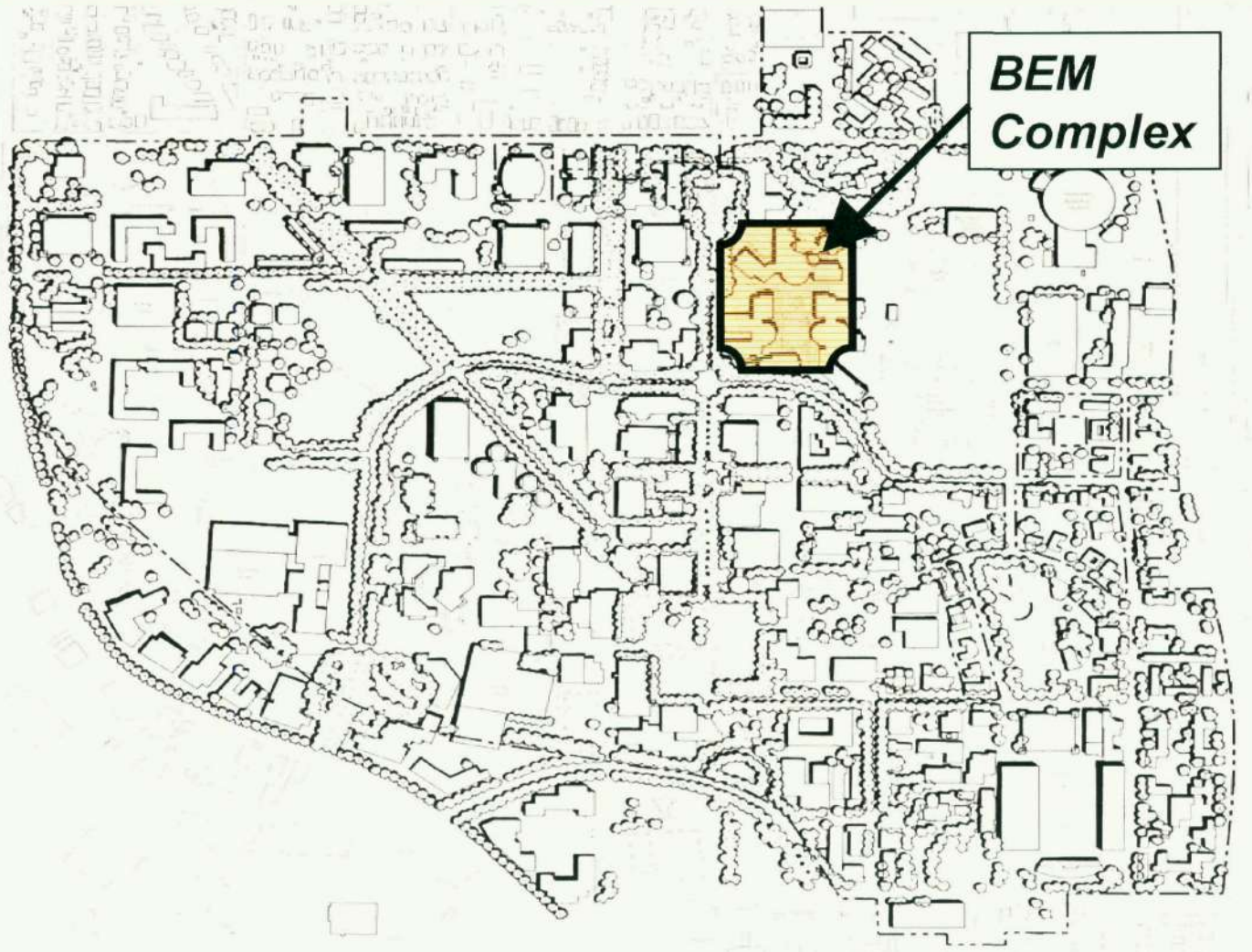
"An extensive and comprehensive strategic planning exercise has been undertaken at Georgia Tech to identify areas where unique institutional strengths best correspond to external opportunities…nowhere is that juncture more obvious and compelling than those frontiers where engineering, computing and science intersect to define the interdisciplinary areas of biotechnology, environmental/sustainable technologies, and materials/molecular sciences and engineering."

BEM Strategic Planning

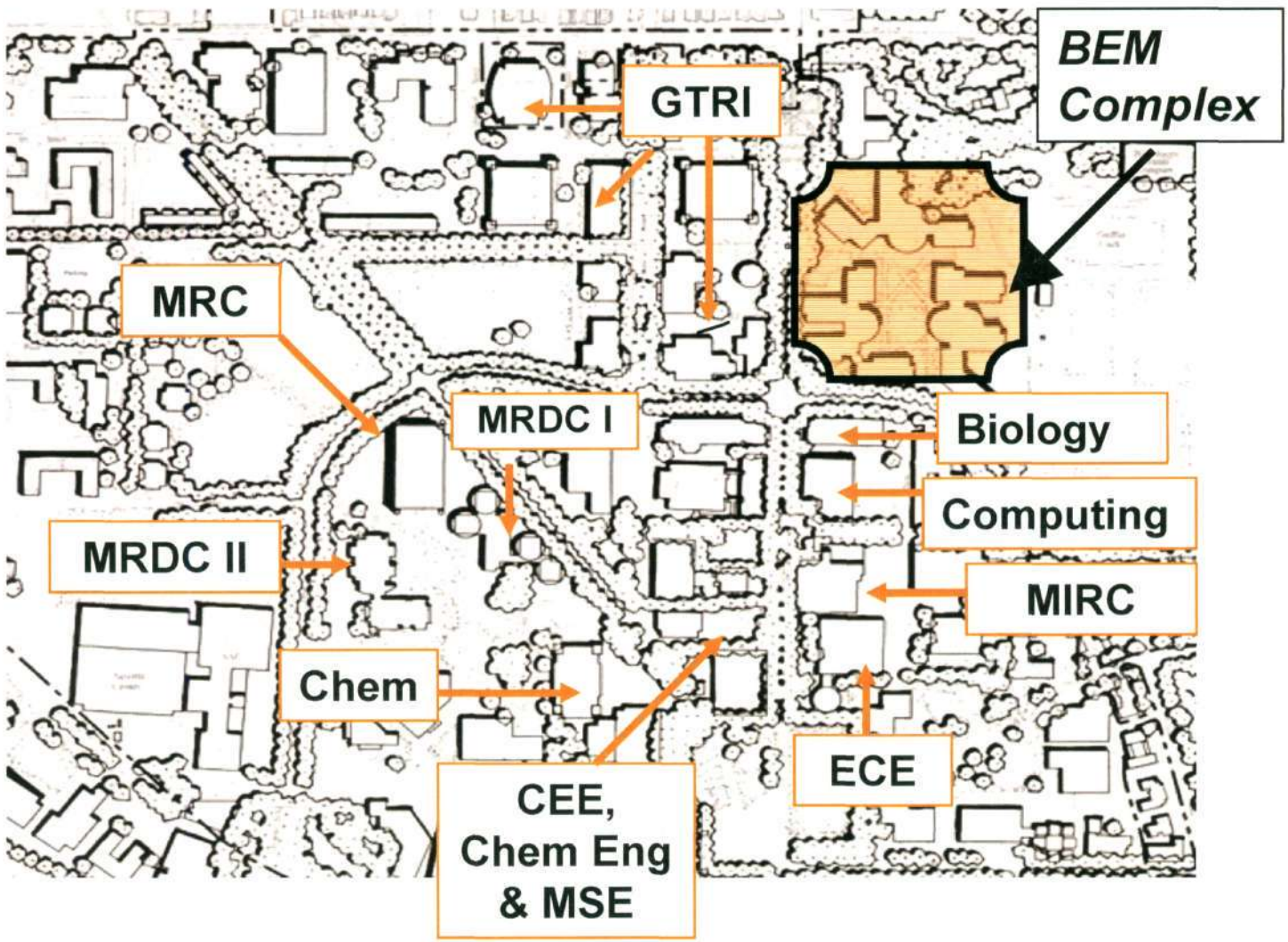
- Strong Future Potential in Fields Blending Engineering, Computing and Science
- Use Strengths in Engineering to Elevate and Shape Sciences
- Enhance Innovative Interdisciplinary Strengths and Industry Linkages
- Support Collaborations with Emory and Other Universities
- Planned as an Integrated Complex
- Utilize Multiple Funding Sources

Rendering of the BEM Complex

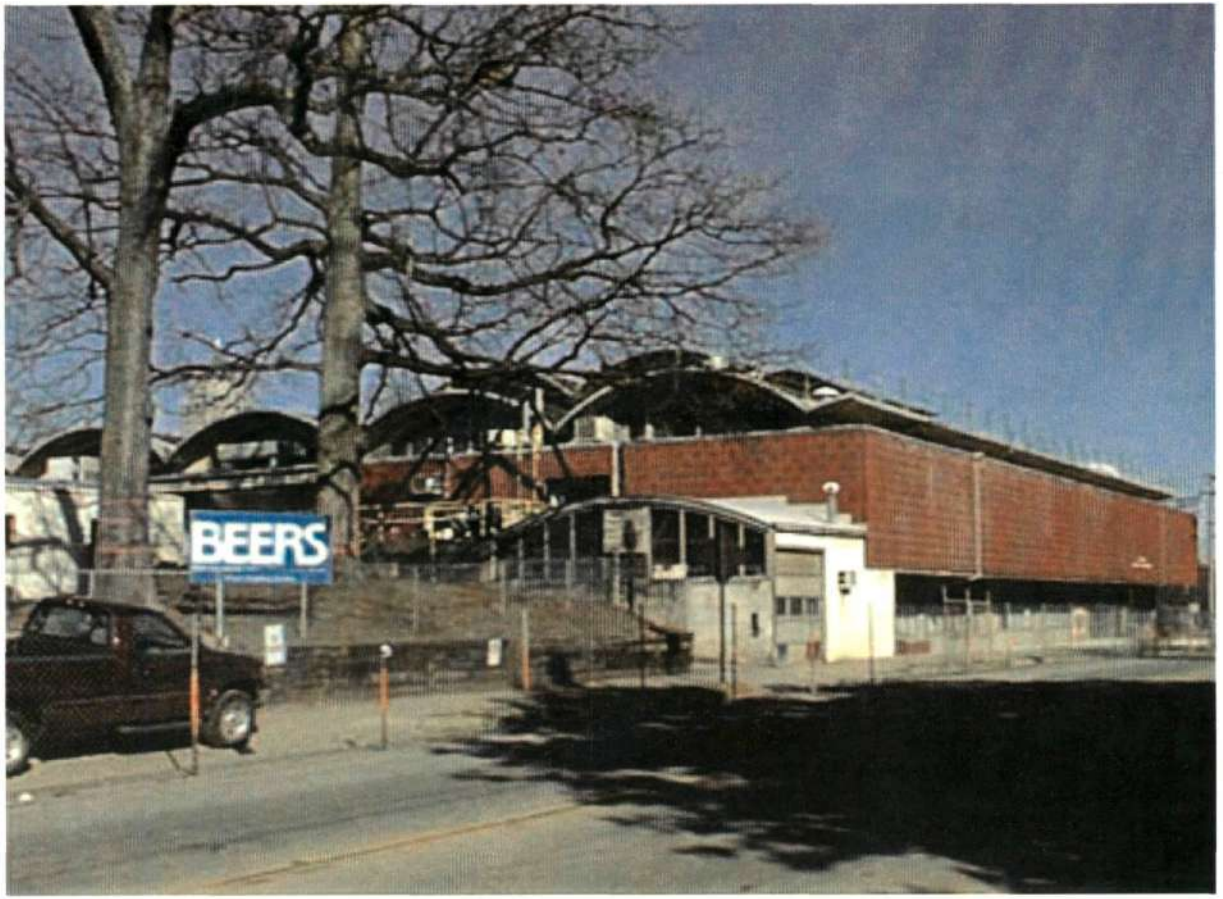
BEM Site on Campus



Program Proximity to BEM Site



The Civil Engineering Lab Building



The Wrecking Crew Arrives...

Demolition Begins...

Going….

Going….

GONE!

Groundbreaking

The BEM Complex

BEM Specifics...

- 10-Acre Site
- 200 Total Faculty
- 630,000 Square Feet of Lab, Office and Support Space
- Space for Research Centers
- Space for Business Incubators
- Innovative Classrooms & Labs

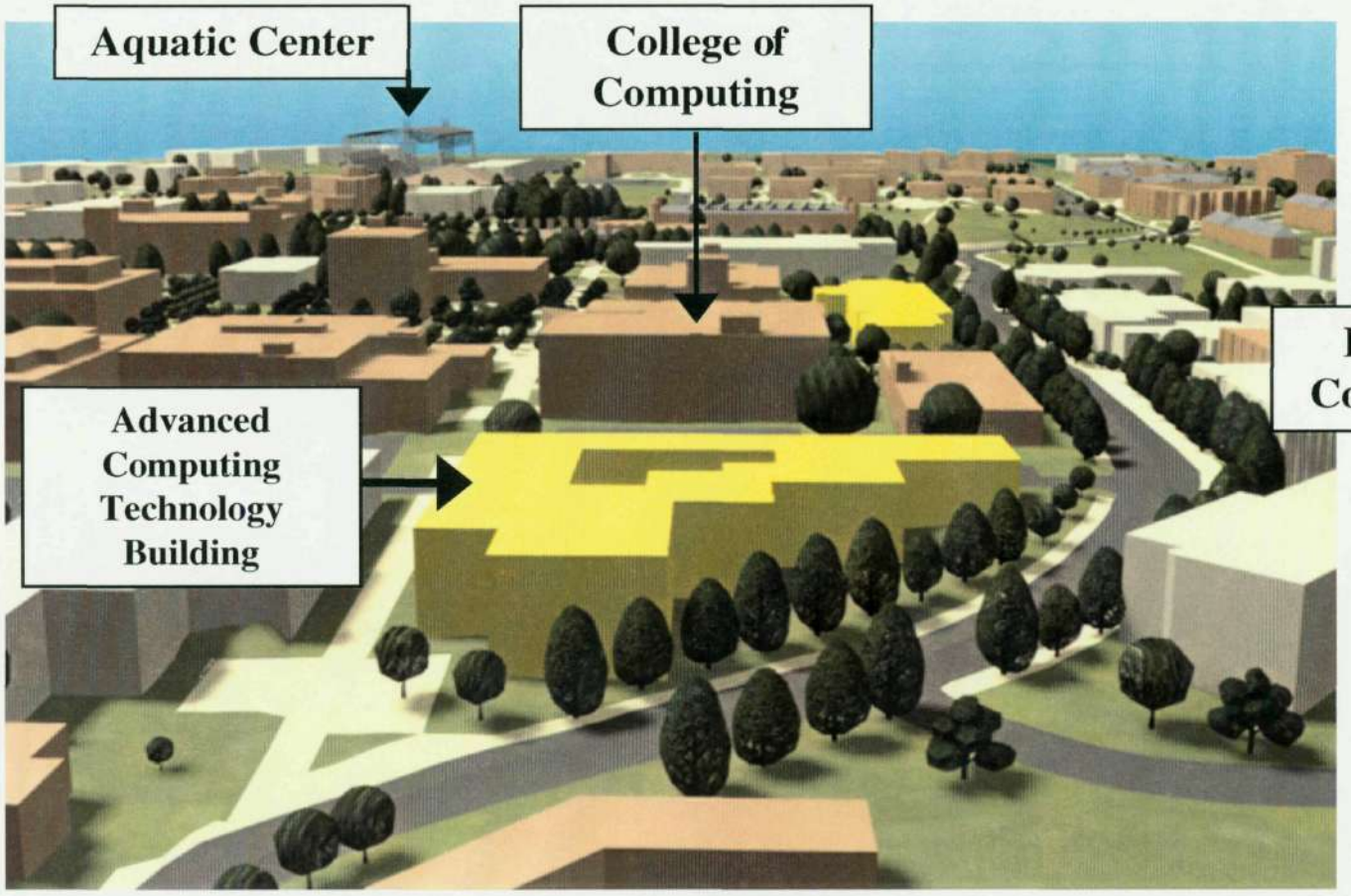
BEM Specifics...

- **Bioengineering & Biosciences**
  - * 140,000 Square Feet
  - * Cost: $30 Million
- **Biomedical Engineering**
  - * 50,000 Square Feet
  - * Cost: $12 Million
- **Environmental Science & Technology**
  - * 260,000 Square Feet
  - * Cost: $57 Million
- **Molecular/Materials Sciences & Engineering**
  - * 180,000 Square Feet
  - * Cost: $40 Million

Programs on the BEM Site

- Biology
- Bioengineering/Biomedical/Biosciences
- Chemical Engineering
- Chemistry & Biochemistry
- Computing
- Environmental Engineering
- Earth & Atmospheric Sciences
- Materials Science & Engineering
- Physics
- Public Policy

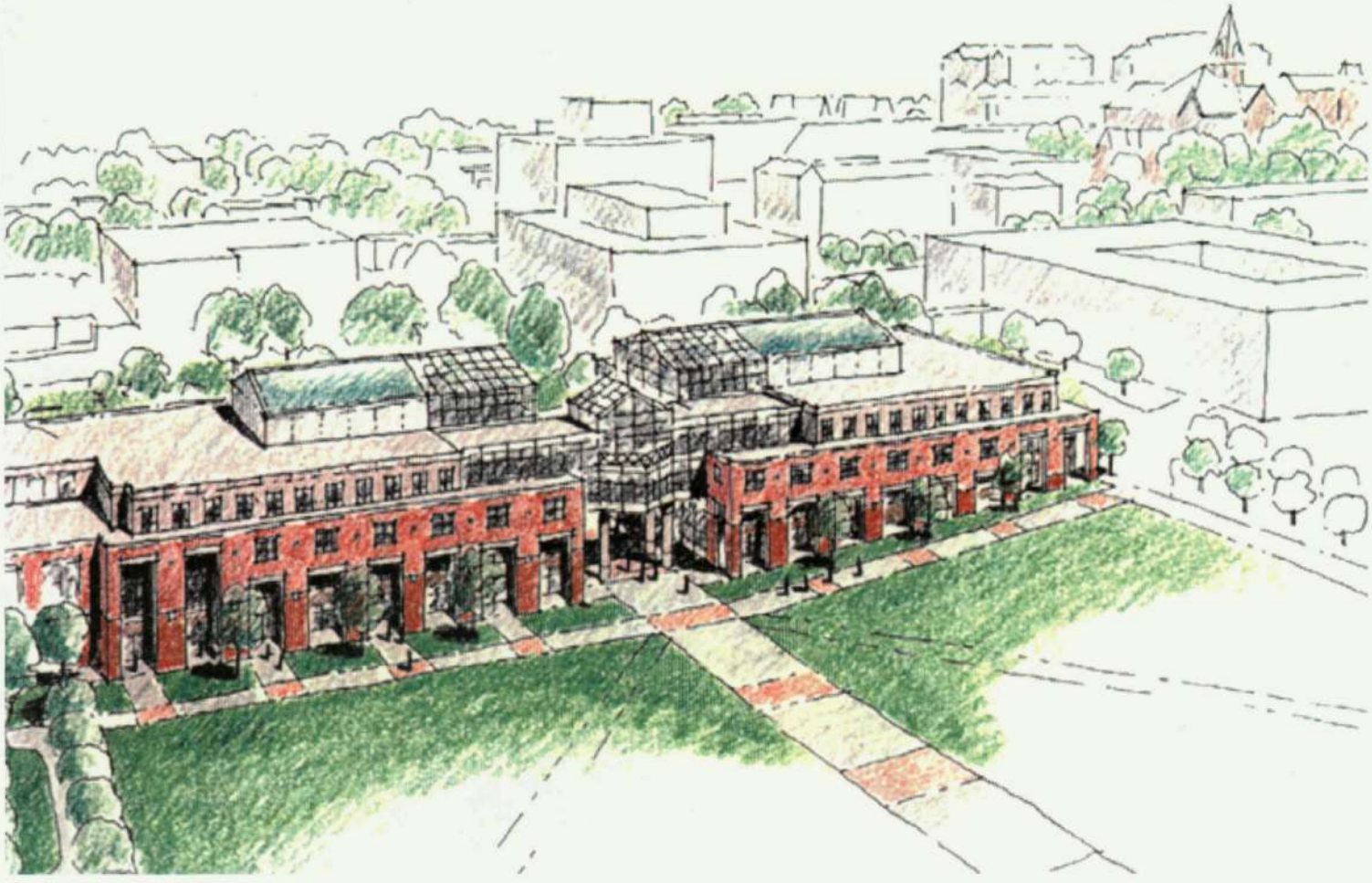
Integrated Planning Example II
Advanced Computing Technology Building



Advanced Computing Technology Building
Specifics

- Estimated Cost: $40 Million
- Funding Sources: $32 M State / $8 M Donor
- 170,000 Square Feet
- Meets Existing & Projected Enrollment Needs
- Consolidates and Expands Programs
- Provides Innovative Teaching & Research Space
- Enhances Integration of Academic Disciplines
- Supports Economic Development

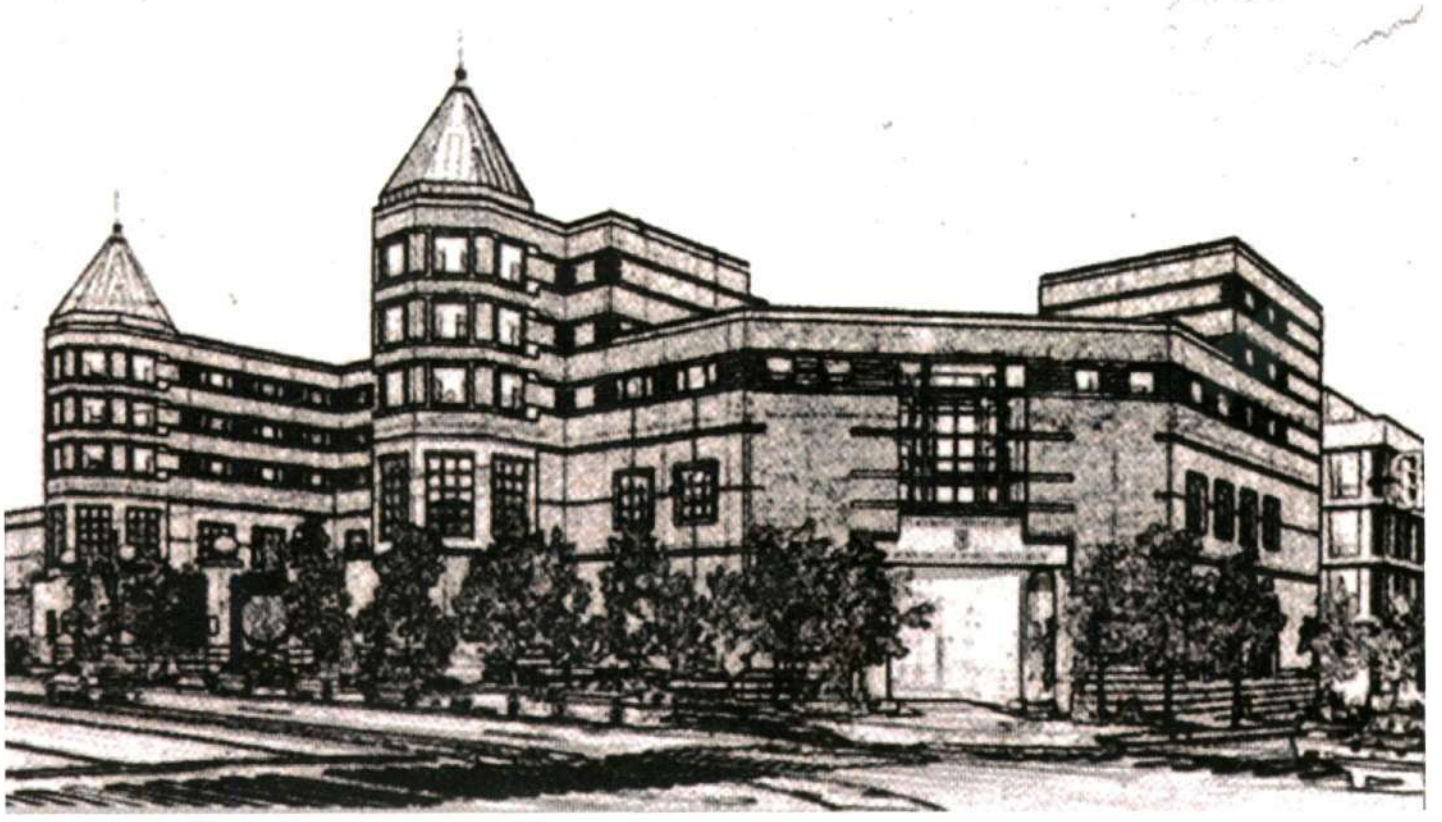
Integrated Planning Example III
Undergraduate Learning Center



Undergraduate Learning Center Specifics

- Expected Cost : $44 Million
- Funding Sources: $36 M State / $8 M Donor
- 225,000 Square Feet
- Creates a Comprehensive Learning Environment
- Blends Formal Academic Study and Campus Life
- Innovative Use of High Tech Classrooms

Integrated Planning Example IV
Executive / Continuing Education Center

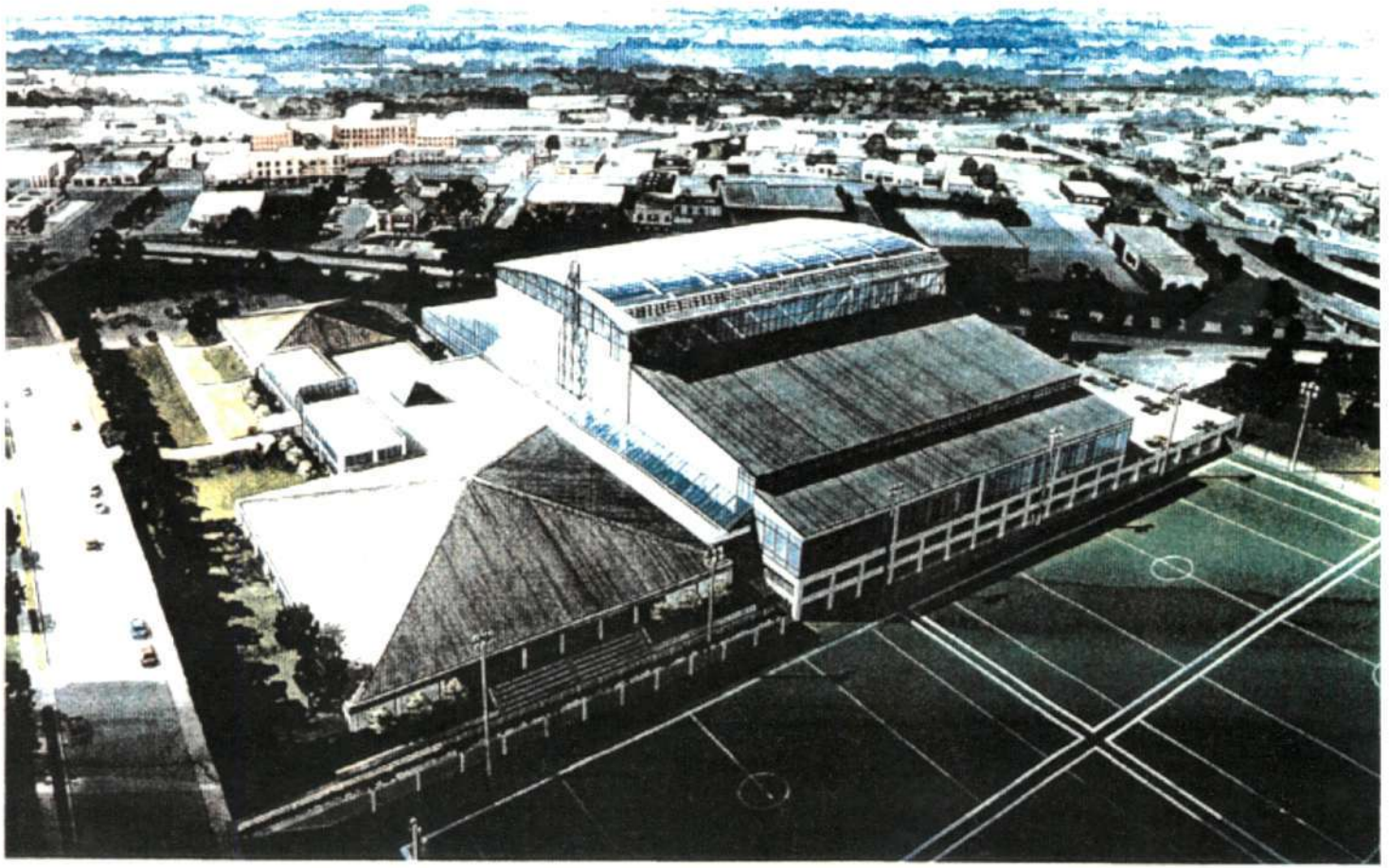


Wharton Executive Education Programs at the Steinberg Conference Center
University of Pennsylvania

Executive/Continuing Education Center Specifics

- Expected Cost : $40 Million
- Funding Sources: $29 M State / $11 M Payback
- Meet Rapid Growth in Demand for Continuing Education
- Use Advanced Technologies to Enhance Distance Learning
- Provide DuPree College with First Class Facilities for Executive Education
- Consider Joint Development with Hotel Operator

Integrated Planning Example V
Student Recreation Center II



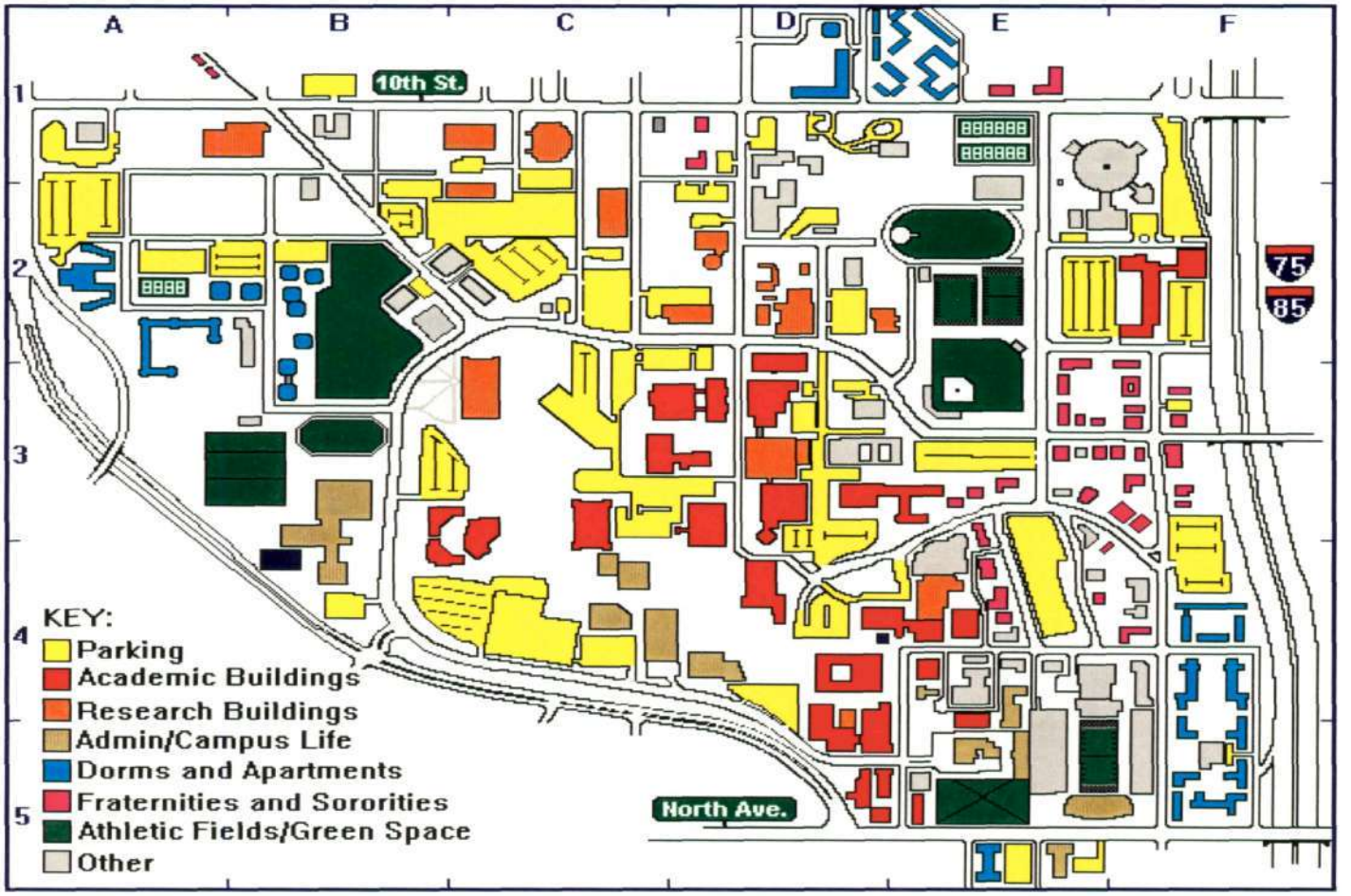
Student Recreation Center II Specifics

- Estimated Cost: $ 39 Million
- Funding Sources: $10 M Donor / $29 M Payback
- 327,000 Square Feet of Classroom, Recreation and Office Space
- Expand Student Recreation
- Unify Aquatic Center and SAC as One Facility
- Ability to Host NCAA and Other Swimming Championships
- Enhance HPS Facilities

Georgia Tech
The Past...

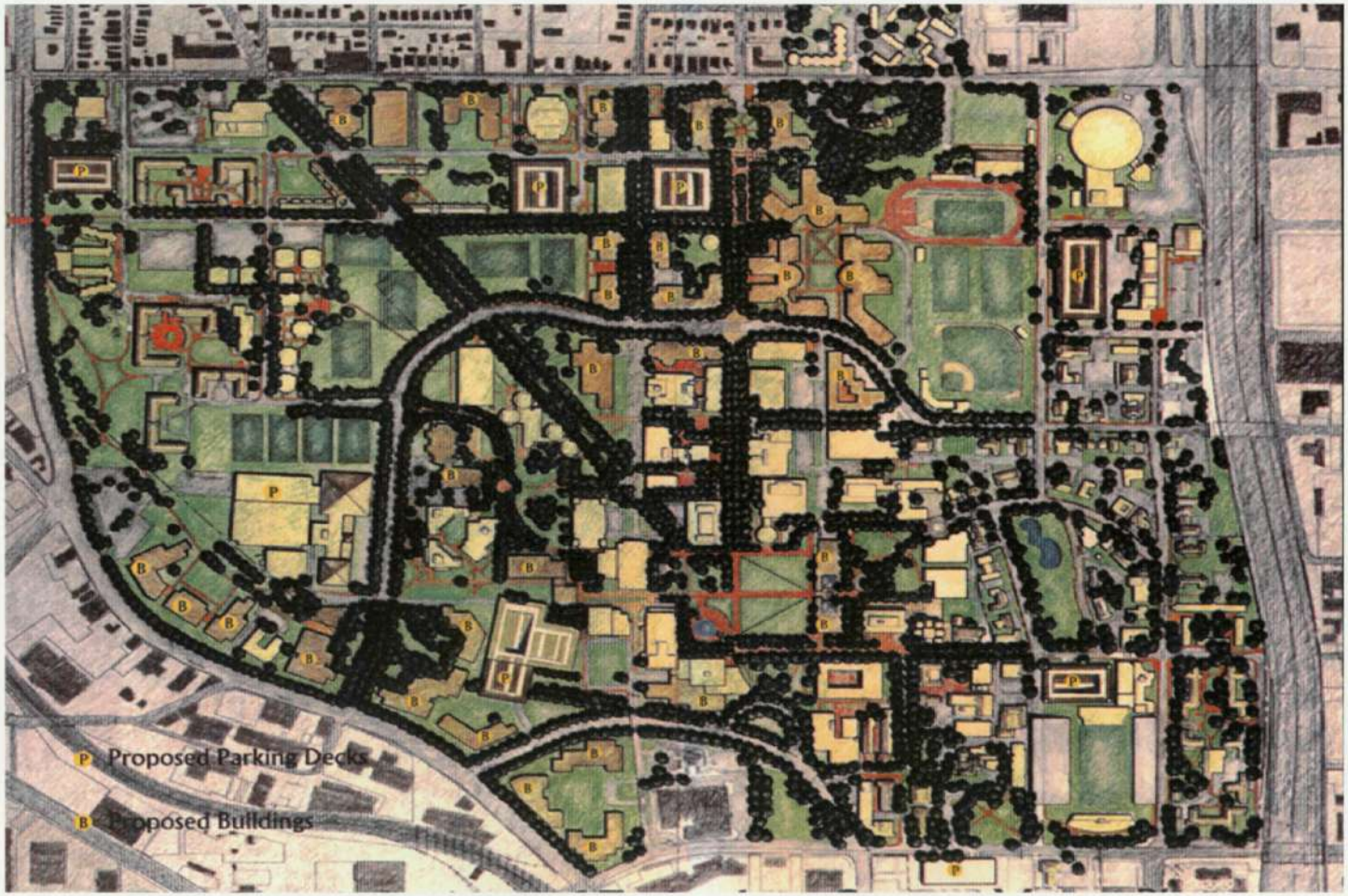
Circa. 1911

Georgia Tech Today...



Circa. 1998

Georgia Tech
The Future...



Circa. 2010